

**Retroreflective sheet**

**Publication number:** CN1238044  
**Publication date:** 1999-12-08  
**Inventor:** YUTAKA MORI (US)  
**Applicant:** MINNESOTA MINING & MFG (US)  
**Classification:**  
- **International:** B32B7/02; G02B5/128; B32B7/02; G02B5/12; (IPC1-7): G02B5/128  
- **European:** G02B5/128  
**Application numbers:** CN19971098792 19971118  
**Priority number(s):** JP19960307821 19961119

Also published as:

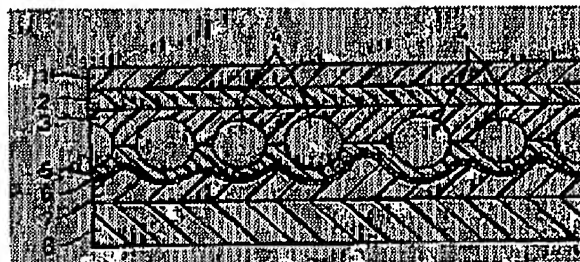
WO9822837 (/  
EP0939913 (A  
US6221496 (B  
JP10153701 (/  
EP0939913 (A

more &gt;&gt;

Report a data error |

Abstract not available for CN1238044  
Abstract of corresponding document: WO9822837

To provide a retroreflective sheet which is suitable for co-molding by injection molding or the like, wherein the retroreflective sheet can be laid within a mold and molded with a resin to form a molded product, and, after molding, the sheet retains a significant portion of its reflection luminance and appearance as compared with the reflection luminance value before molding. A retroreflective sheet used for a co-molding, comprising a metallic reflective layer, a microspherical lens layer disposed as a single layer, and a transparent focal resin layer disposed between the reflective layer and the microspherical lens layer, in which the focal resin layer comprises a mixture of cellulose ester and polyvinyl butyral resin.



Data supplied from the esp@cenet database - Worldwide

## Family list

12 family members for: CN1238044  
Derived from 10 applications



- |    |  |  |
|----|--|--|
| 1  | <b>RECTROREFLECTIVE SHEET</b><br>Inventor: MORI YUTAKA (JP)<br>EC: G02B5/128<br>Publication info: CA2271486 A1 - 1998-05-28                                | Applicant: MINNESOTA MINING & MFG (US)<br>IPC: B32B7/02; G02B5/128; B32B7/02 (+2)      |
| 2  | <b>Retroreflective sheet</b><br>Inventor: YUTAKA MORI (US)<br>EC: G02B5/128<br>Publication info: CN1238044 A - 1999-12-08                                  | Applicant: MINNESOTA MINING & MFG (US)<br>IPC: B32B7/02; G02B5/128; B32B7/02 (+2)      |
| 3  | <b>RECTROREFLECTIVE SHEET</b><br>Inventor: MORI YUTAKA (US)<br>EC: G02B5/128<br>Publication info: DE69716631D D1 - 2002-11-28                              | Applicant: MINNESOTA MINING & MFG (US)<br>IPC: B32B7/02; G02B5/128; B32B7/02 (+2)      |
| 4  | <b>RECTROREFLECTIVE SHEET</b><br>Inventor: MORI YUTAKA (US)<br>EC: G02B5/128<br>Publication info: DE69716631T T2 - 2003-07-03                              | Applicant: MINNESOTA MINING & MFG (US)<br>IPC: B32B7/02; G02B5/128; B32B7/02 (+2)      |
| 5  | <b>RECTROREFLECTIVE SHEET</b><br>Inventor: MORI YUTAKA (US)<br>EC: G02B5/128<br>Publication info: EP0939913 A1 - 1999-09-08<br>EP0939913 B1 - 2002-10-23   | Applicant: MINNESOTA MINING & MFG (US)<br>IPC: B32B7/02; G02B5/128; B32B7/02 (+2)      |
| 6  | <b>RETROREFLECTION SHEET</b><br>Inventor: MORI HIROSHI<br>EC: G02B5/128<br>Publication info: JP10153701 A - 1998-06-09                                     | Applicant: MINNESOTA MINING & MFG<br>IPC: B32B7/02; G02B5/128; B32B7/02 (+3)           |
| 7  | <b>RECTROREFLECTIVE SHEET</b><br>Inventor: MORI YUTAKA (KR)<br>EC: G02B5/128<br>Publication info: KR20000053351 A - 2000-08-25                             | Applicant: MINNESOTA MINING & MFG<br>IPC: B32B7/02; G02B5/128; B32B7/02 (+2)           |
| 8  | <b>Retroreflective sheet</b><br>Inventor: MORI YUTAKA (JP)<br>EC: G02B5/128<br>Publication info: US6221496 B1 - 2001-04-24                                 | Applicant: 3M INNOVATIVE PROPERTIES CO (US)<br>IPC: B32B7/02; G02B5/128; B32B7/02 (+5) |
| 9  | <b>Retroreflective sheet</b><br>Inventor: MORI YUTAKA (JP)<br>EC: G02B5/128<br>Publication info: US6461718 B2 - 2002-10-08<br>US2001023009 A1 - 2001-09-20 | Applicant:<br>IPC: G02B5/128; G02B5/12; (IPC1-7): B32B15/08 (+2)                       |
| 10 | <b>RECTROREFLECTIVE SHEET</b><br>Inventor: MORI YUTAKA<br>EC: G02B5/128<br>Publication info: WO9822837 A1 - 1998-05-28                                     | Applicant: MINNESOTA MINING & MFG (US)<br>IPC: B32B7/02; G02B5/128; B32B7/02 (+2)      |

Data supplied from the esp@cenet database - Worldwide